

WHAT IS CLAIMED IS:

1. An IC card receiving a power from an external terminal and performing a process, the IC card comprising:

5           a storage which stores first identification information uniquely assigned to the IC card;

          an acquisition unit configured to acquire second identification information from the external terminal;

          a first timer including a first change unit whose  
10       state changes with lapse of time without the power, the state of the first change unit changing from a first initial state to a final state via an intermediate state, the first timer outputting a first signal  
15       indicative of a changed state of the first change unit in response to an instruction issued when the IC card receives the power;

          a comparison unit configured to compare the second identification information with the first  
20       identification information, determine whether or not the second identification information and the first identification information are identical to each other, and provide a first initializing signal according to at least one of determined results; and

          a controller which initializes the first change  
25       unit to the first initial state when receiving the first initializing signal from the comparison unit, the controller further controlling the IC card to make it

inhibit the process until the state of the first change unit changes to the intermediate state.

2. The IC card according to claim 1, the comparison unit including a count unit configured to count times of the determined results until the number of times at least reaches a preset upper limit, the comparison unit providing the first initializing signal if the number of times reaches the preset upper limit.

3. The IC card according to claim 2, further comprising

a second timer including a second change unit whose state changes with lapse of time starting from a second initial state without the power, at a rate different from a change rate of the first change unit, the second timer outputting a second signal indicative of a changed state of the second change unit in response to an instruction issued when the IC card receives the power,

the comparison unit further configured to provide a second initializing signal each time the comparison unit determines that the second identification information fails to identify with the first identification information, and

the controller initializing the second change unit to the second initial state when receiving the second initializing signal from the comparison unit.

4. The IC card according to claim 3, wherein if

the first timer fails to measure a time, if the second timer measures a time, and if the comparison unit determines that the second identification information is identical to the first identification information, the controller regards that the second timer fails to measure a time.

5        5. The IC card according to claim 2, further comprising

10        a second timer including a second change unit whose state changes with lapse of time starting from a second initial state without the power, at a rate different from a change rate of the first change unit, the second timer outputting a second signal indicative of a changed state of the second change unit in response to an instruction issued when the IC card receives the power,

15        the controller regarding that the second timer fails to measure a time each time the comparison unit determines that the second identification information identifies with the first identification information.

20        6. The IC card according to claim 5, wherein the controller instructs the count unit to reset the number of counted times if the controller regards that the second timer fails to measure a time.

25        7. The IC card according to claim 2, further comprising

      a second timer including a second change unit

whose state changes with lapse of time starting from a second initial state without the power, at a rate different from a change rate of the first change unit, the second timer outputting a second signal indicative of a changed state of the second change unit in response to an instruction issued when the IC card receives the power, the second timer starting from the second initial state at which the count unit starts counting, and ending after a preset period.

8. The IC card according to claim 7, wherein if the first timer fails to measure a time, if the second timer measures a time, and if the comparison unit determines that the second identification information is identical to the first identification information, the controller regards that the second timer fails to measure a time.

9. A method of preventing illegal use of an IC card, the IC card receiving a power from an external terminal and performing a process, the method comprising:

preparing an IC card including a storage which stores first identification information uniquely assigned to the IC card, an acquisition unit configured to acquire second identification information from the external terminal, a first timer including a first change unit whose state changes with lapse of time without the power, the state of the first change unit

changing from a first initial state to a final state  
via an intermediate state, the first timer outputting a  
first signal indicative of a changed state of the first  
change unit in response to an instruction issued when  
5 the IC card receives the power;

comparing the second identification information  
with the first identification information, determining  
whether or not the second identification information  
and the first identification information are identical  
10 to each other, and providing a first initializing  
signal according to at least one of determined results;  
and

initializing the first change unit to the first  
initial state when the first initializing signal is  
15 received, and inhibiting the process until the state of  
the first change unit changes to the intermediate  
state.

10. The method according to claim 9, comparing the  
second identification information including:

20 counting times of the determined results; and  
providing the first initializing signal if the  
number of times reaches a preset value.

11. The method according to claim 10, wherein the  
IC card further includes a second timer including a  
25 second change unit whose state changes with lapse of  
time starting from a second initial state without the  
power, at a rate different from a change rate of the

first change unit, the second timer outputting a second signal indicative of a changed state of the second change unit in response to an instruction issued when the IC card receives the power,

5           the method further comprising providing a second initializing signal each time it is determined that the second identification information fails to identify with the first identification information, and

          initializing the second change unit to the second  
10       initial state when the second initializing signal is received.

          12. The method according to claim 11, wherein if the first timer fails to measure a time, if the second timer measures a time, and if it is determined that the  
15       second identification information is identical to the first identification information, it is regarded that the second timer fails to measure a time.

          13. The method according to claim 10, wherein the IC card further includes a second timer including a  
20       second change unit whose state changes with lapse of time starting from a second initial state without the power, at a rate different from a change rate of the first change unit, the second timer outputting a second  
25       signal indicative of a changed state of the second change unit in response to an instruction issued when the IC card receives the power,

          the method further comprising regarding that the

second timer fails to measure a time each time it is determined that the second identification information identifies with the first identification information.

14. The method according to claim 13, further  
5 comprising resetting the number of counted times if it is regarded that the second timer fails to measure a time.

15. The method according to claim 10, wherein the IC card further includes a second timer including a  
10 second change unit whose state changes with lapse of time starting from a second initial state without the power, at a rate different from a change rate of the first change unit, the second timer outputting a second signal indicative of a changed state of the second  
15 change unit in response to an instruction issued when the IC card receives the power,

the method further comprising instructing the second timer starting from the second initial state at which counting is started, and ending after a preset  
20 period.

16. The method according to claim 15, wherein if the first timer fails to measure a time, if the second timer measures time, and if it is determined that the second identification information is identical to the  
25 first identification information, it is regarded that the second timer fails to measure a time.

17. A program stored in a storage medium and

executed by a processor included in an IC card, the program comprising:

means for instructing a processor to compare second identification information with first  
5 identification information, determine whether or not the second identification information and the first identification information are identical to each other, and providing a first initializing signal according to at least one of determined results the IC card  
10 receiving a power from an external terminal and performing a process using the program, the IC card including: a storage which stores the first identification information uniquely assigned to the IC card; an acquisition unit configured to acquire the  
15 second identification information from the external terminal; and a first timer including a first change unit whose state changes with lapse of time without the power, the state of the first change unit changing from a first initial state to a final state via an  
20 intermediate state, the first timer outputting a first signal indicative of a changed state of the first change unit in response to an instruction issued when the IC card receives the power; and

means for instructing the processor to initialize  
25 the first change unit to the first initial state when the first initializing signal is received, and instructing the processor to inhibit the process until



the state of the first change unit changes to the intermediate state.

18. The program according to claim 17, means for instructing a processor to compare second  
5 identification information including means for instructing the processor to count times of the determined results, and

means for instructing the processor to provide the first initializing signal if the number of times  
10 reaches a preset value.

19. The program according to claim 18, wherein the IC card further includes a second timer including a second change unit whose state changes with lapse of time starting from a second initial state without the  
15 power, at a rate different from a change rate of the first change unit, the second timer outputting a second signal indicative of a changed state of the second change unit in response to an instruction issued when the IC card receives the power, and

20 the program includes means for instructing the processor to provide a second initializing signal each time it is determined that the second identification information fails to identify with the first, and

means for instructing the processor to initialize  
25 the second change unit to the second initial state when the second initializing signal is received.

20. The program according to claim 19, wherein if

the first timer fails to measure a time, if the second timer measures a time, and if it is determined that the second identification information is identical to the first identification information, it is regarded that  
5 the second timer fails to measure a time.

21. The program according to claim 18, wherein the IC card further includes a second timer including a second change unit whose state changes with lapse of time starting from a second initial state without the  
10 power, at a rate different from a change rate of the first change unit, the second timer outputting a second signal indicative of a changed state of the second change unit in response to an instruction issued when the IC card receives the power, and

15 the program includes means for instructing the processor to regard that the second timer fails to measure a time each time it is determined determines that the second identification information identifies with the first identification information.

20 22. The program according to claim 21, further comprising means for instructing the processor to reset the number of counted times if it is regarded that the second timer fails to measure a time.

23. The program according to claim 18, wherein the  
25 IC card further includes a second timer including a second change unit whose state changes with lapse of time starting from a second initial state without the

power, at a rate different from a change rate of the  
first change unit, the second timer outputting a second  
signal indicative of a changed state of the second  
change unit in response to an instruction issued when  
5 the IC card receives the power, the second timer  
starting from a second initial state at which counting  
is started, and ending after a preset period.

24. The program according to claim 23, wherein if  
the first timer fails to measure a time, if the second  
10 timer measures a time, and if it is determined that the  
second identification information is identical to the  
first identification information, it is regarded that  
the second timer fails to measure a time.